

1 53875-55 EWT(1)/EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/EWG(m)/EPR Fr-L/PS-L/Pu-L  
WW/EM

ACCESSION NR: AP5017248

UR/0170/64/000/007/0075/0079

AUTHOR: Vidin, Yu. V.; Boykov, G. P.

TITLE: Application of the zone method to problems on nonsymmetric heat transfer

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 7, 1964, 75-79

TOPIC TAGS: heat transfer

ABSTRACT: The use of the zone method is proposed for the solution of the problem of nonsymmetric heating of an unbounded plate by radiation. The results can also be applied in the case of heat transfer at constant but differing heat fluxes on the surface of the plate. There was good agreement between experimental values and theoretical values. Orig. art. has: 1 figure, 20 formulas, 2 graphs.

ASSOCIATION: Politekhnikheskiy institut im. S. M. Kirova, Tomsk (Polytechnical Institute)

SUBMITTED: 01Apr64

ENCL: 00

SUB CODES: TD

NR REF SOV: 005

OTHER: 001

JPRS

Card 11/1 1/1

VIDIN, Yu.V.; BOYKOV, G.P.

Determining the temperature on the surfaces of an infinite plate subjected to radiant heating. Izv. TPI 125:3-7 '64.

Temperature field in a plane thick-walled screen.  
Ibid.:28-32

(MIRA 18:8)

L 63911-65 EWT(1)/EPF(c)/EPF(n)-2/ENG(m) WN

ACCESSION NR: AR5018967

UR/0044/65/000/007/B071/B071  
517.9:536.2

SOURCE: Ref. zh. Matematika, Abs. 7B344

AUTHOR: Salomatov, V. V.; Boykov, G. P.

TITLE: Heating of bodies in a radiation medium with variable temperature

CITED SOURCE: Izv. Tomskogo politekhn. in-ta, v. 125, 1964, 58-66

TOPIC TAGS: boundary value problem, heat conductivity

TRANSLATION: A boundary value problem for a one-dimensional heat equation is studied for the case when one of the boundary conditions is homogeneous of the second kind and the other is nonlinear (defining heating of a body in a radiating medium). The given boundary value problem is linearized, and an integral Laplace transform is used to solve the resulting linear problem. Solutions are exhibited (in the form of infinite series) for an unbounded plate, a cylinder, and a sphere in the case of exponentially changing temperatures in the external medium. A. Uspenskiy

SUB CODE: TD, MA

ENCL: 00

Card 1/1 *000*

BOYKOV, G.P.

Ordered thermal regime in radiative heating of bodies. Inzh. fiz.  
zhur. 7 no.6:70-71 '64. (MIRA 17:12)

1. Politicheskiy institut imeni S.M. Kirova, Tomsk.

VIDIN, Yu. V.; BOYKOV, G. P.

Calculating the asymmetrical heating of an infinite plate under  
the effect of radiation. Izv. vys. ucheb. zav.; Chern. met. 7 no.  
6:167-172 '64. (MIRA 17:7)

1. Tomskiy politekhnicheskii institut.

SALOMATOV, V.V.; BOYKOV, G.P.

A radiant heat flux due to the heating of bodies by a source  
of variable temperature. Inzh.-fiz. zhur. 8 no.3:369-374  
Mr '65. (MIRA 18:5)

1. Politekhnikheskiy institut imeni Kirova, Tomsk.

*BOYKOV, I.S.*

BARDIN, I.P., akademik; BOYKOV, I.S., inzhener.

~~WASHERS~~  
Oxygen and problems of metallurgical processes. Kislород 10 no.2;  
1-10 '57. (MLRA 10:9)

(Iron--Metallurgy) (Steel--Metallurgy)  
(Oxygen--Industrial applications)

BOYKOV, I.Ya.

By-pass anastomoses in inoperable cancer of the esophagus and  
cardia. Khirurgiia 35 no. 11:23-28 N '59. (MIRA 14:1)  
(ESOPHAGUS--SURGERY) (STOMACH--SURGERY)



SAMOYLIKOV, K. (Noginsk Moskovskoy obl.); FILATOV, K. (Borovichi  
Novgorodskoy obl.); MAL'TSEV, V. (Minsk); SAMODUROV, D. (Leningrad);  
BOYKOV, K. (Kuybyshev); SMITSKIY, V. (Leningrad)

Our New Year interviews. Radio no.1:10-11 Ja '63. (MIRA 16:1)  
(Radio)

BOYKOV, M. A.

PHASE I BOOK EXPLOITATION

411

Moshchevitin, Antonin Savvich; Engineer-Colonel

Elektrotehnika (Electrical Engineering). Moscow, Voen. Izd-vo Min-va obor.  
SSR, 1957. 511 p.

Ed.: Boykov, M. A.; Engineer-Colonel; Tech. Ed.: Strel'nikova, M. A.

PURPOSE: The monograph is an elementary text-book for general readers.

COVERAGE: The theoretical bases of electrical engineering and the practical uses of electrical energy comprise the subject matter of this book. The basic problems of d-c and a-c current theory are examined and the author reviews the chemical sources of electrical energy, electrical machines, rectifiers and electric measurements. Special attention is paid to the physical aspects of the phenomena and processes involved. The book starts with a historical review of the development of electrical engineering, stress being laid on the achievements of Russian scientists of the 18th and 19th centuries. The following Soviet Scientists are praised for their part in Lenin's electrification plan, GOMERO :

Card 1/17

Electrical Engineering

411

G. M. Krzhizhanovskiy, M. A. Shatelen, R. E. Klitsop, L. B. Krasin, and Professors G. F. Malsar'yev, B. Ye. Vedeneyev, G. O. Graftio, K. A. Krug, S. I. Kurbatov, V. F. Mitkevich, and K. I. Shenfer. The following Soviet scientists are also mentioned: V. I. Vologdin, the inventor of powerful mercury-arc rectifiers and the author of a method for casehardening steel products by means of HF currents; S. I. Vavilov, whose theories permitted the creation of daylight lamps; A. A. Smurov, A. F. Ioffe and A. M. Zalesskiy, who investigated high-voltage problems; M. P. Kostenko, K. I. Shenfer, and Ye. A. Alekseyev, whose studies constitute the basis of modern electrical machinery design; L. I. Mandel'shtam, and N. D. Papaleksi, who investigated oscillation theory and radio wave propagation; B. R. Lozarenko, and N. I. Lozarenko, the discoverers of the electric-spark metal processing method. There are no references.

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PHASE I BOOK EXPLOITATION

SOV/4246

Boykov, Mikhail Aleksandrovich

Elektronno-luchevaya trubka (Cathode-Ray Tube). Moscow, Voenizdat  
M-va obor. SSSR, 1960. 119 p. (Series: Radiolokatsionnaya  
tekhnika) No. of copies printed not given.

Ed.: A. V. Vrublevskiy, Engineer Lieutenant Colonel; Tech. Ed.:  
A. M. Krasavina.

PURPOSE: This booklet is intended for officers engaged in the  
operation of radio and radar equipment. It may also be used  
by the general reader interested in radar.

COVERAGE: The booklet discusses the physical principles of  
cathode-ray tube operations and the processes occurring in them.  
The operation and power supply of the tubes used in indicator  
units of radar stations are also described. No personalities  
are mentioned. No references are given.

TABLE OF CONTENTS:

Introduction  
~~Card 1/4~~

3

KNYAZHITSKIY, Grigoriy Mikhaylovich; KOSTYLEV, Ivan Georgiyevich; BOYKOV,  
M.A., red.; SOKOLOVA, G.F., tekhn.red.

[An aid for training telegraph operators in the use of telegraph  
apparatus] Posobie po obucheniiu telegrafistov rabote na appara-  
takh. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 142 p.

(MIRA 13:5)

(Telegraph--Handbooks, manuals, etc.)

FEDORTSOV, Boris Fedorovich, inzh.-podpolkovnik, kand. tekhn. nauk; BOYKOV,  
M.A., red.; SOLOMONIK, R.L., tekhn. red.

[Phototelegraphy engineering] Fototelegrafnaia tekhnika. Moskva,  
Voen. izd-vo M-va obor. SSSR, 1961. 246 p. (MIRA 14:8)  
(Phototelegraphy)

AUTHOR: Boykov, N.S., Engineer

SOV/133-59-3-31/32

TITLE: Conference on the Co-ordination of Scientific Research  
Work for 1959 in the Iron and Steel Industry (Soveshchaniye  
po ko-ordinatsii nauchno-issledovatel'skikh rabot na 1959  
god v chernoy metallurgii)

PERIODICAL: Stal', 1959, Nr 3, pp 286 - 287 (USSR)

ABSTRACT: The conference took place in November, 1958 in the Central Scientific Research Iron and Steel Institute in order to prepare a project of the main research work to be carried out in 1959. The following subjects were included: beneficiation of ores, agglomeration of ores and concentrates, the production and application of fluxed sinter (the scale of the work on this subject requires the construction on all main ore fields of experimental plants fitted with all modern equipment so that industrial-scale tests could be carried out); application of reducing gases and oxygen in blast furnaces; studies of the blast-furnace operation on fully prepared burden; an increase in the durability of the blast-furnace hearth and hearth bottom; testing of various methods of desulphurisation of iron outside the blast furnace and of various methods of pre-refining of iron; application of natural gas for

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SOV/133-59-3-31/32

Conference on the Co-ordination of Scientific Research Work for  
1959 in the Iron and Steel Industry

firing open-hearth furnaces; intensification of the open-hearth process by the application of oxygen and compressed air; preparation of charge for open-hearth furnaces; oxygen application in converter smelting; development of the technology of smelting of high phosphorus iron; heating and thermal insulation of ingot tops; studies of thermodynamics and kinetics of metallurgical processes; method of producing steel by blowing oxygen in a rotary furnace will be tested on an industrial scale; the application of vacuo smelting and teeming of steel; intensification of electrosmelting processes; the production of high-purity steels and alloys; further development of continuous casting of steel. For the ferroalloy industry the following subjects will be investigated and tested: beneficiation of poor manganese ores; development of new processes of producing ferrochromium and special alloys; double and triple special deoxidising agents; application of oxygen in the production of ferroalloys. In the field of direct reduction the following work is proposed: the development and construction of an experimental plant for the production of sponge iron with the application of

Card2/4



SCW133-59-3-31/32  
Conference on the Co-ordination of Scientific Research Work for  
1959 in the Iron and Steel Industry

gaseous reducers; direct reduction of iron ore in a fluidised bed; the production of liquid metal directly from ore in a high temperature reducing flame and a method of continuous production of steel. In the field of rolling: the production of lightened profiles; the manufacture of profiles and tubes by extrusion method; improvement of the production of clad steels (including those clad with plastics); new types of tubes. In the field of metal physics: physical basis of the theory of strength; development of new types of heat-resistant, low-alloy, tool, structural and other steels and precision alloys; an improvement in the durability of rails; thermal treatment of steels. The plan also includes some work on improvements in the technology of production and development of new types of high-strength reinforcement for pre-stressed concrete; intensification of drawing steel wire from steels difficult to deform, etc. A number of research works in the field of metallurgical heat techniques aiming at the improvement in the design of metallurgical furnaces is also planned (not enumerated).

Card3/4

SOV/133-59-3-31/32

Conference on the Co-ordination of Scientific Research Work for  
1959 in the Iron and Steel Industry

ASSOCIATION: TsNIICHM

Card 4/4

Boykov, N.S.

PHASE I BOOK EXPLOITATION

SOV/4241

Kondakov, Vadim Vsevolodovich, and Nikolay Stepanovich Boykov

Vyplavka stali v malykh konverterakh na kislorodnom dut'ye (Steelmaking in Small Oxygen-Blast Converters) Moscow, Metallurgizdat, 1960. 186 p. Errata slip inserted. 2,400 copies printed.

Ed. (Title page): I.P. Bardin (Deceased), Academician; Ed. (Inside book): A. Ye. Netesin; Ed. of Publishing House: Ye. V. Dokukina; Tech. Ed.: P.G. Islent'yeva.

**PURPOSE:** The book is intended for engineers, technicians, and foremen in foundries of metallurgical and machine plants specializing in the production of irregular-shape steel castings.

**COVERAGE:** The theoretical principles and characteristic features of the process of converting pig iron into steel in small oxygen-blast converters are discussed. Methods of oxygen supply into small converters and technical-economic indexes of the industrial operation of small converters in some plants are presented.

Card 1/4

## Steelmaking in Small Oxygen-Blast Converters

SOV/4241

Small Bessemer converters with supply of oxygen blast from the side are discussed in detail. Information is given on equipment for oxygen supply to small converters. Problems in the further development of the manufacture of steel for irregular-shape castings in small units with the use of oxygen are considered. No personalities are mentioned. There are 32 references, all Soviet.

## TABLE OF CONTENTS:

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Ch. I. Theoretical Principles of the Steelmaking Process in Small Oxygen-Blast Converters	13
1. Thermodynamic regularities of the oxidation of silicon, manganese, and carbon in the converter process	13
2. Kinetics and mechanism of physicochemical processes taking place in the converter	21
3. Heat engineering and process indexes of the converter process with the use of oxygen	24

Card 2/4

BOYKOV, N.<sup>S</sup> inzh.

Current problems of ferrous metallurgy. NTO 2 no.7:13-16 JI '60.  
(MIRA 13:7)

(Cast iron--Metallurgy)

SHUBIN, A.V.; BOYKO, N.S.

Changing the design of Lurgi electrostatic filters. TSement 28  
no.6:21-22 N-D '62. (MIRA 15:12)

1. TSementnyy zavod "Bol'shevik".  
(Dust collectors)

Boykov, P.

AID P - 1812

Subject : USSR/Aeronautics

Card 1/1 Pub. 35 - 7/18

Author : Boykov, P., Major

Title : ~~USSR/Aeronautics~~  
Bombing from overcast

Periodical : Vest. voz. flota, 3, 34-39, Mr 1955

Abstract : The author describes step-by-step bombing from overcast.  
He analyzes bombing and discusses possible errors.  
Some examples are given and names mentioned.

Institution: None

Submitted : No date

2

*Handwritten:* m

*Handwritten:* Beryllium

**Use of Beryllium in Copper-Base Alloys for Reliable Castings. P. Hoikor**  
(Licence Delo (Foundry Practice), 1937, 2, (1); C. Abs., 1938, 22, 4504).—

[In Russian.] The average of 20 melts showed a loss of 7-8% beryllium by slagging. The presence of beryllium increases the fluidity of the alloys and produces a good surface. The binary alloys are easy to handle, but addition of a third metal, such as aluminium, may cause porosity and liquation. The mechanical properties of castings containing 0-77-9-17% beryllium, and occasionally 22-34% zinc or 4-6% aluminium, are given. The corrosion properties of the alloys were determined by continuous and intermittent immersion in artificial sea-water for 1380 hrs. and by suspension of specimens over boiling sea-water. The best corrosion-resistance was shown by the alloy containing beryllium 1-93, aluminium 4-33, and copper 93-7%, with the alloy containing beryllium 0-43, zinc 33-45, iron 0-25, and copper 65% next. The metallographic structures are described.

**ASB SLA METALLURGICAL LITERATURE CLASSIFICATION**

**SELECTED REFERENCES**

**SELECTED REFERENCES**



BOYKOV, Petr Ivanovich; DRONG, I.I.; PRITSKER, P.Ya.; RUBINSHTEYN, Sh.Ya.;  
~~TERASOV~~ TARASOV, A.M., inzhener, redaktor; PESTRYAKOV, A.I., redaktor;  
PEDOTOVA, A.F., tekhnicheskii redaktor

["Belarus" MTS-1 and MTZ-2 tractors] Traktory "Belarus" MTS-1  
i MTZ-2. Pod red. A.M.Tarasova. Moskva, Gos. izd-vo selkhoz. lit-ry,  
1956. 350 p. (MLRA 9:12)  
(Tractors)

ANISIMOV, A.A.; BOYKOV, P.V.; VOLKOVA, A.B.

Effect of salts on the activity of  $\alpha$ -glucanphosphorylase.  
Prikl. biokhim. i mikrobiol. 1 no.2:206-211 Mr-Apr '65.  
(MIRA 18:11)  
1. Gor'kovskiy gosudarstvennyy universitet imeni N.I.  
Lobachevskogo.

LARIONOV, K.A., prof.; KADACHIGOV, V.M., prof.; KUZHEL'EV, N.S., dotsent;  
LOPUKHOV, L.S., dotsent; TIKHONOV, I.A., prof.; TSAPKIN, N.V.,  
dotsent; CHESNOKOV, P.A., dotsent. V redaktirovani prinal  
uchastiye BOYKOV, S.I.. AZAROV, E.K., red.; LEVONEVSKAYA, L.G.,  
tekhn.red.

[Political economy; textbook for students of economic theory]  
Politicheskaya ekonomiya; posobie v pomoshch' izuchaiushchim  
voprosy ekonomicheskoi teorii. Leningrad, Lenizdat, 1960.  
362 p. (MIRA 13:7)

(Economics)

BOYKOV, S.I.

What the revaluation of the capital assets of railroad transportation proved. Uch. zap. LIIZHT no.3:96-105 '62.  
(MIRA 17:3)

BOYKOV, V. polkovnik (Moskva)

Not the size but the quality. Sov. foto 17 no.6:20-21 Je '57.  
(MIRA 10:8)

(Cameras)

BOYKOV, V.

Instrument for determining the road and economic characteristics of  
automobiles. Avt.transp. 39 no.4:23-24 Ap '61. (MIRA 14:5)  
(Automobiles—Testing) (Automobile—Fuel consumption)

Boykov, V. I.

USSR

Synthesis and properties of  $\alpha$ - and  $\gamma$ -methyltrisilanes  
 D. Petrov, V. A. Panamarenko, and V. I. Boykov (N. D.  
 Zelinski Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow.)  
 Izvest. Akad. Nauk. S.S.S.R., Otdel. Khim. Nauk 1954, 504-  
 10; Bull. Acad. Sci., U.S.S.R., Div. Chem. Sci. 1954, 459-34  
 (Engl. translation); cf. C.A. 48, 5080b. — Satn. of 336 g. bu-  
 tadene in 155 g. AcOH at  $-10^\circ$  with HBr gave 563 g.  $C_4H_9Br$  (1), b. 85-102°. Addn. of 62 g.  $Et_3SiCl$  and 50 g. I to 14  
 g. Mg in  $Et_2O$ , followed by removal of  $Et_2O$  and heating the  
 residue 0 hrs. to  $100^\circ$  gave 22 g.  $Et_3SiC_4H_9$ , b.p. 85-8°, d.  
 0.7900,  $n_D^{20}$  1.4504. When this product was hydrogenated  
 over Raney Ni at 80 atm. H and  $180^\circ$  there was obtained  
 $Et_3SiC_4H_9$ , b.p. 190.5-1.5°, d. 0.7849,  $n_D^{20}$  1.4383; the  
 Raman spectrum of this was (cm.<sup>-1</sup>): 160(3), 262(3),  
 297(3), 321(2), 548(2), 608(8), 638(3), 722(2), 850(4),  
 830(4), 910(1), 973(6), 1012(4), 1021(4), 1050(1), 1054(1),  
 1188(2), 1214(1), 1236(6), 1312(2), 1382(3), 1419(4),  
 1452(2), 1467(7). The Raman spectrum of pure  $Et_3SiBu$   
 (prepd. by the Grignard route; b.p. 190.5°, d. 0.7707,  
 $n_D^{20}$  1.4350) was: 149(3), 281(4), 303(3), 333(1), 516(2), C  
 550(3), 569(8), 638(4), 724(4), 752(4), 849(4), 882(6), H  
 971(6), 1019(4), 1051(4), 1079(3), 1191(4), 1230(5), 1292  
 (1), 1304(3), 1345(1), 1385(3), 1418(5), 1448(3), 1467(8).  
 Thus the product prepd. from I is approx. 90% pure  $MeEt_2Si$  a  
 $CH_3SiEt_2$ , the rest being the Bu analog. Similar reaction  
 of 72 g. Mg with 500 g.  $SiCl_4$  and 200 g. I gave 79 g. product,  
 b.p. 57-62°, from which was isolated 47.8 g.  $CH_3SiEt_2$ ,  
 b.p. 121-3°, d. 1.2013,  $n_D^{20}$  1.4524; this (47.8 g.) reduced  
 by 18.2 g. LiAlH<sub>4</sub> in 70 ml. iso-Am<sub>2</sub>O to 11.4 g.  $C_4H_9SiH_3$ ,  
 which after fractionation gave  $CH_3CH_2CH_2CH_2SiH_3$ , b.p.  
 54°, d. 0.6840,  $n_D^{20}$  1.4050, and  $MeCH_2CH_2CH_2SiH_3$ , b.p.  
 59-7.5°, d. 0.7012,  $n_D^{20}$  1.4178. To 200 g.  $MeSiHCl_2$  in  
 $Et_2O$  was added  $C_4H_9MgBr$  (from I), from 40 g. Mg and

135 g. I in Et<sub>2</sub>O; after completion of the reaction at 50° there was isolated a chlorosilane fraction, b. 105.8-8.8°, d<sub>4</sub> 0.8025, n<sub>D</sub> 1.4250; reduction of this with LiAlH<sub>4</sub> as above gave after fractionation only 1 product: C<sub>12</sub>H<sub>26</sub>SiMe<sub>2</sub>, which appeared to be C<sub>12</sub>H<sub>26</sub>SiMe<sub>2</sub>, b. 70-1°, d<sub>4</sub> 0.7105, n<sub>D</sub> 1.4102. Refluxing 832 g. MeSiCl<sub>3</sub> in an app. with a quartz tube insert which was illuminated with an Hg-lamp, with passage of Cl into the app. yielded 237 g. C<sub>12</sub>H<sub>26</sub>SiCl<sub>2</sub> (30%); this (98 g.) added to MeMgI, from 200.5 g. MeI, and refluxed 7 hrs. in Et<sub>2</sub>O gave 32 g. Me<sub>2</sub>SiCH<sub>2</sub>CH<sub>2</sub>Cl, b. 97°, n<sub>D</sub> 1.4172, and 25.5 g. Me<sub>2</sub>SiCH<sub>2</sub>CH<sub>2</sub>I, b. 130.5°, n<sub>D</sub> 1.4805. The former (32 g.) and 0.5 g. Mg in Et<sub>2</sub>O yielded Me<sub>2</sub>SiCH<sub>2</sub>MgCl, which was treated with 30 g. I and heated on a steam bath (violent reaction), yielding some Me<sub>2</sub>SiCH<sub>2</sub>CH<sub>2</sub>I, b. 139.8°, d<sub>4</sub> 0.7400, n<sub>D</sub> 1.4235; the Raman spectrum of this product contained the line at 1600(s) and only a trace of 1642 and 3000, indicating that the product was rather pure Me<sub>2</sub>SiCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>Me, contg. perhaps 5% of the branched isomer. The higher-boiling fraction was identified as Me<sub>2</sub>SiCH<sub>2</sub>CH<sub>2</sub>SiMe<sub>2</sub>, b. 140°, d<sub>4</sub> 0.7600, n<sub>D</sub> 1.4200. G. M. Kosolapoff



BOYKOV, V. I., Cand of Tech Sci -- (diss) "Investigation of the process of the interaction of steam and carbon of a fuel." Moscow, 1957, 11 pp  
Moscow, (Chemical Engineering Institute im D. I. Mendeleyev), 120 copies  
(KL, 33-57, 88)

BOYKOV, V.N., inzh.

Effect of a concentrator on the stressed state and lasting strength.  
Izv. vys. ucheb. zav.; mashinostr. no.6:42-50 '64.

(MIRA 17:12)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. N.E. Baumana.

BOYKOV, V.R.

Intraorgan branching of the pulmonary artery in man in normal conditions and in pulmonary abscesses. Izv. AN Kazakh. SSR. Ser. med. i fiziol. no.2:27-35 '61. (MIRA 15:4)

1. Iz kafedry operativnoy khirurgii (zav. - dotsent G.A.Kaysar'yants)  
i fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. I.I.Neymark)  
Altayskogo meditsinskogo instituta (direktor - dotsent F.M.Kolomiitsev).  
(PULMONARY ARTERY) (LUNGS--ABSCESS)

L 07934-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6027620

SOURCE CODE: UR/0145/66/000/006/0025/0029

AUTHOR: Boykov, V. N. (Candidate of technical sciences)

36

33

ORG: None

B

TITLE: Strength of notched specimens under continuous loading

SOURCE: IVUZ. Mashinostroyeniye, no. 6, 1966, 25-29

TOPIC TAGS: stress concentration, ductility, metal deformation

ABSTRACT: The author compares experimental and theoretical data on the long-term strength of EI765 alloy and EI756 steel specimens with deep annular notches. An IP-2 machine for testing creep was used for studying both smooth and notched specimens. Specimens 10 mm in diameter were notched to a depth of 2.2 mm with a rounding radius of 0.4 mm and an apex angle of  $59^{\circ}12'$ . These dimensions correspond to a theoretical stress concentration factor of 3. The tests were done at various stress levels. Two specimens were tested at each level and a third was used if there was considerable scatter in the experimental data. The theoretical data are based on an analytical method developed by the author for determining the long-term strength of specimens with stress concentration. A graph is given showing the time dependence of the effective coefficient of stress concentration for EI415 and EI756 steel and for EI765 alloy. This ratio is defined as the ratio of the long-term strength of a smooth specimen to

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UDC; 620.17:669.140.669.18

L 07934-67

ACC NR: AP6027620

3

that of a specimen with stress concentrator on the same test base. The results show that this factor increases with testing time for EI415 steel and EI765 alloy and remains constant for EI756 steel. The sensitivity of the metal to stress concentration depends on its ductility and embrittlement during protracted testing. In materials with low ductility (e. g. EI415 steel) which become brittle under the effect of temperature and stress, diagrams for axial and peripheral stresses rise sharply from the middle toward the edges. Stress peaks do not change with time which results in a more rapid destruction of notched specimens in comparison with smooth specimens under identical average stresses. Deformation curves for this type of material are smooth without inflections. Materials with higher ductility have smooth stress diagrams without stress peaks. The deformation curves for this type of material resemble the Prandtl diagram. The long-term strength of notched specimens is higher in this case than that of smooth specimens. The article was presented for publication by Doctor of technical sciences, Professor S. D. Ponomarev, MVTU. Orig. art. has: 4 figures, 1 table.

SUB CODE: 11/ SUBM DATE: 21Feb66/ ORIG REF: 003

Card 2/2 *egk*

BOYKOV, V.V., aspirant.

Priority of the study of diseases of the ear, throat and nose in school children. Vest. oto-rin. 16 no.5:9-11 S-0 '54. (MLRA 7:12)

1. Iz kafedry organizatsii zdravookhraneniya (zav. prof. T.Ya. Tkachev) Voronezhskogo meditsinskogo instituta.

(OTORHINOLARYNGOLOGY,

otorhinolaryngol. dis. in school child., prev. in Russia)

(SCHOOLS,

otorhinolaryngol. serv. in Russia)

*BOYKOV V. V.*

BOYKOV, V.V., kand.med.nauk

Diseases of the upper respiratory organs and the ear in preschool and school children. *Pediatrics* no.9:12-15 S '57. (MIRA 10:12)

1. Iz Severo-Osetinskogo meditsinskogo instituta (dir. - dotsent S.N.Polikarpov, rukovoditel' - sav. kafedroy organizatsii zdravookhraneniya Voronezhskogo meditsinskogo instituta prof. T.Ya. Tkachev.

(RESPIRATORY ORGANS--DISEASES) (EAR--DISEASES)

ROMANOV, V.P., inzh.; VIL'CHITSKIY, V.V., inzh.; FAYNER, I.A., inzh.; SEN'KO, L.S., inzh.; VOYNIKANIS, N.V., inzh.; BOYKOV, V.V., inzh.; BLOKHOV, B.G., inzh.

Making 2,753m of crosscut in hard rock in 31 days. Shakht. stroi. 8  
no.6:17-21 Je '64. (MIRA 17:10)

1. Kombinat Kuzbassugol' (for Romanov, Vil'chitskiy, Fayner). 2. Shakhta No.3/3-bis tresta Prokop'yevskugol' (for Sen'ko). 3. Trest Prokop'yevskugol' (for Voynikanis). 4. Kuznetskiy mashinostroitel'nyy zavod (for Boykov, Blokhov).



BOYKOV, V.V., inzh.; KARASIK, I.L., inzh.

New rock bit for rotary borehole drilling with water flushing.

Shakht.stroi. 8 no.12:11-12 D '64.

(MIRA 18:1)

1. Kuznetskiy mashinostroitel'nyy zavod.

SEROV, Ya.A., kand. tekhn. nauk; BOYKOV, V.V., inzh.; OSIPOV, L.D., inzh.

Industrial testing of the double piston rotary percussion VUEM-3  
boring machine. Gor. zhur. no.11:52-55 N '64. (MIRA 18:2)

1. Sibirskiy metallurgicheskiy Institut (for Serov). 2. Kuznetskiy  
mashinostroitel'nyy zavod (for Boykov). 3. VostNIGRI (for Osipov).

SEROV, Ya.A., kand.tekhn.nauk; MANKE, G.K., inzh.; BOYKOV, V.V., inzh.

Increasing the strength of bore rods. Gor.zhur. no.1:58-60 Ja '65.

(MIRA 18:3)

1. Vostochnyy nauchno-issledovatel'skiy gornorudnyy institut (for Serov, Manke). 2. Kuznetskiy mashinostroitel'nyy zavod (for Boykov).

SEROV, Ya.A., kand. tekhn. nauk; BOYKOV, V.V., inzh.; NAZARENKO, L.A.,  
inzh.; OSIPOV, L.D., inzh.

Studying the loads rising from the work of rotary percussion boring  
machines. Ger. zhur. no.9:53 S '65. (MIRA 18:9)

BOYKOV, Ya.P.

Peculiarities of the secretory function of the stomach in  
patients following chemical burns of the internal organs.  
Vrach.delo no.3:319 Mr '60. (MIRA 13:6)

i. Kafedra obshchey khirurgii (sav. - zasl. deyatel' nauki,  
prof. M.I. Kolomiychenko) Kiyevskogo meditsinskogo instituta.  
(ESOPHAGUS--WOUNDS AND INJURIES) (STOMACH--SECRECTIONS)

BOYKOV, Yu.I., aspirant

Indication of Bacillus anthracis by means of the medium developed by the Terasevich State Institute for the Testing of Medical Biological Preparations. Veterinariia 41 no. 4:16-18 Ap '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii.

BOYKOV, Ya.P.

Secretory function of the stomach in the case of an artificial  
esophagus. Vrach.delo no.11:3-7 N '62. (MIRA 16:2)

1. Kafedra obshchey khirurgii (zav. - zasluzhennyy deyatel'  
nauki, prof. M.I. Kolomiychenko) Kiyevskogo meditsinskogo  
instituta.

(~~ESOPHAGUS~~—~~SURGERY~~) (~~STOMACH~~—~~SECRETIONS~~)

GANDIN, Lev Semenovitch, doktor fiz.-matem. nauk; BOYKOVA, A.G.,  
red.

[A machine predicts the weather] Mashina predskazyvaet  
pogodu. Leningrad, Gidrometeoizdat, 1965. 168 p.  
(MIRA 18:8)



RUDENKO, Yevgeniy Ivanovich; TAUBE, Petr Reýngol'dovich;  
PETRECHUK, O.P., otv. red.; BOYKOVA, A.G., red.

[Fifth ocean] Piatyi okean. Leningrad, Gidrometeoizdat,  
1965. 167 p. (MIRA 18:12)

PASETSKIY, V.M., kand. ist. nauk; TRESHNIKOV, A.F., doktor geogr.  
nauk, otv. red.; BOYKOVA, A.G., red.; ZEL'MANOVA, L.A.,  
red.; RUSAKOVA, G.Ya., red.

[Twelve exploits] Dvenadtsat' podvigov. Leningrad, Gidro-  
meteor. izd-vo, 1965. 320 p. (MIRA 18:10)

KONDRAT'YEV, K.Ya., doktor fiz.-mat. nauk, prof.; KROSHKIN, M.G.,  
kand. fiz.-mat. nauk; MORACHEVSKIY, V.G., kand. fiz.-  
mat. nauk; FEDOROV, Ye.K., akademik, red.; VETLOV, I.P.,  
kand. fiz.-mat. nauk, otv. red.; BOYKOVA, A.G., red.

[Our planet from space; an album of photographs] Nasha  
planeta iz kosmosa; al'bom fotografii. Leningrad, Gidro-  
meteoizdat, 1964. 50 p. (MIRA 18:2)

BOYKOVA, A. I.

BOYKOVA, A. I. - "Investigation of solid solutions of calcium aluminum ferrites."  
Leningrad, 1955. Acad Sci USSR, Inst of Silicate Chemistry.' (Dissertations  
for degree of Candidate of Chemical Sciences.)

SC: Knizhnaya letopis', No 46. 26 November 1955. Moscow.

BOYKOVA, H

7-125

18  
Solid solutions of calcium aluminoferrite. N. A. TOROPOV AND  
A. I. BOYKOVA. *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim.*  
Nauk, 1955, 972-80; abstracted in *J. Appl. Chem. (London)*, 6  
(10) 11-296 (1956). Solid solutions of Ca aluminoferrite are  
formed from  $2\text{CaO} \cdot \text{Fe}_2\text{O}_3$  and  $5\text{CaO} \cdot 3\text{Al}_2\text{O}_3$  and also small  
quantities of  $\text{CaO}$ . The lattices are not cubic but are similar to  
 $\text{CaO} \cdot \text{Fe}_2\text{O}_3$  and  $4\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$  (1), with rhombic modifica-  
tions. It does not form solid solutions of  $3\text{CaO} \cdot \text{Al}_2\text{O}_3$ . The  
aluminoferrite formula can be given as  $8\text{CaO} \cdot 3\text{Al}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ . In  
the manufacture of clinkers, aluminoferrites vary in composition;  
preliminary calculation should therefore be made, based on  
microscopic investigation.  
V.R.E.

mt 2

mt  
125

1. Inst. Khimii Silikatov Aluminii Nauk SSSR.  
(Solutions, Solides) (Calcium aluminoferrates)

BOYKOVA, A.I. [translator]; BONDAR', A.I. [translator]; VOANO, V.G.  
[translator]; YEGOROVA, Ye.N. [translator]; NIKOGOSYAN, Kh.S.  
[translator]; TOROPOV, N.A., professor, redaktor; ZAKHAR'YEVSKIY,  
V.A., redaktor; OGANDZHANOVA, N.A., redaktor; DUMBRE, I.Ya., tekhnicheskii redaktor

[Physical chemistry of silicates; a collection of articles.  
Translated from the English and German] Fizicheskaya khimiya silikatov;  
sbornik statei. Perevod s angliiskogo i nemetskogo A.I.Boikovoi i dr.  
Pod red. N.A.Toropova. Moskva, Izd-vo inostrannoi lit-ry, 1956. 302 p.  
(Silicates) (MIRA 9:7)

BOYKOVA, I. I.

Investigation of the system  $CaO-Al_2O_3-Fe_2O_3$ . N. A. Torok  
 boy and A. I. Boykova. *Zhur. Neorgan. Khim.*, 1 [9] 2104-2108  
 (1950). The  $CaO-Al_2O_3-Fe_2O_3$  system may be pictured as a  
 continuous series of solid solutions of  $2CaO \cdot Fe_2O_3$  in  $5CaO \cdot 3Al_2O_3$ .  
 It was established that the structure of the solid solution is not  
 cubic, but a rhombic modification of  $5CaO \cdot 3Al_2O_3$  (a) similar to  
 $3CaO \cdot Fe_2O_3$  and  $4CaO \cdot Al_2O_3 \cdot Fe_2O_3$ . The aluminoferrite with  
 maximum content of aluminum in the solid solution contains 17.5%  
 by weight of  $Fe_2O_3$  and has the formula  $8CaO \cdot 3Al_2O_3 \cdot Fe_2O_3$ .  
 By means of a crystallographic and X-ray investigation of the  
 clinker of aluminoferrite, analyzed in the centrifuge, it was  
 shown that the aluminoferrite in the clinker has a varying com-  
 position. 3 figures, 12 references.

D.T.W.

Am. Soc. Chem. Engrs.

fcc

AUTHOR: BOYKOVA, A.I., PORAY-KOSHITS, Ye.A. PA - 3570  
 TITLE: X-Ray Analysis of Calcium Alumferrite Solid Solutions.  
 (Rentgenograficheskoye issledovaniye tverdykh rastvorov al'yumo-  
 ferritov kal'tsiya, Russian)  
 PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 5, pp 1125 - 1134 (U.S.S.R.)  
 ABSTRACT: The experiments were carried out in the ionization plant URS-50-I. A complete indication of all lines of solid solutions in the presence of calcium aluminates was carried out, all distances between surfaces of the line (040) to the line (235) + (1141) were computed with an accuracy of up to  $\pm 0.0037 \text{ \AA}$ , and the measurements and volumes of the elementary cells of the alumferrites were determined in samples of 12, 14, 16, 20, 32, and 42 weight %  $\text{Fe}_2\text{O}_3$ . The composition of the sample with a solid boundary solution (with a minimum  $\text{Fe}_2\text{O}_3$  content) was determined according to the modification of the parameters of the solid solutions. With an increase of ferric oxide in the alumferrite phase by 1 mol %, the parameters increased by about 0.1 %. In this way the result of crystal-optic investigation is confirmed. According to the latter the alumferrites of calcium in the samples with 12 and 14 weight % of ferric oxide have the same parameters

Card 1/2



PA - 3570

X-Ray Analysis of Calcium Alumferrite Solid Solutions.

and form a solid boundary solution with 17.5 weight %  $\text{Fe}_2\text{O}_3$ . According to the modification of the intensity of a number of aluminat lines the composition of the sample with a minimum content of ferric oxide and in which calcium aluminates were lacking, were approximatively determined. The sample contained about 22 weight %  $\text{Fe}_2\text{O}_3$ . (With 7 illustrations, 2 tables, and 4 Slavic references).

ASSOCIATION: Institute for the Chemistry of Silicates, Leningrad.

PRESENTED BY:

SUBMITTED: 31.7.1956

AVAILABLE: Library of Congress

Card 2/2

BOYKOVA, A. I., TOROPOV, N. A. and KH. S., NIKOGOSYAN

"Synthesis and Analysis of Some Properties of Hillebrandite and Other  
Calcium Hydrosilicates" p. 44

~~XX~~  
~~XX~~

Transactions of the Fifth Conference on Experimental and Applied Mineralogy  
and Petrography, Trudy ... Moscow, Izd-vo AN SSSR, 1953, 516pp.

reprints of reports presented at conf. held in Leningrad, 26-31 Mar 1956. The  
purpose of the conf. was to exchange information and coordinate the activities  
in the fields of experimental and applied mineralogy and petrography, and to  
stress the increasing complexity of practical problems.

5(4), 15(2)

AUTHORS: Toropov, N. A., Nikogosyan, Kh. S., SOV/78-4-5-35/46  
Boykova, A. I.

TITLE: On the Dehydration of Calcium Hydrosilicate  
 $2\text{CaO} \cdot \text{SiO}_2 \cdot \text{H}_2\text{O}$  - Hillebrandite (O dehidratatsii  
gidrosilikata kal'tsiya  $2\text{CaO} \cdot \text{SiO}_2 \cdot \text{H}_2\text{O}$  - gillebrandita)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5,  
pp 1159-1164 (USSR)

ABSTRACT: The dehydration products of natural and synthetic hillebrandite were investigated by means of X-ray analyses, crystallo-optic, and thermal analyses. Natural hillebrandite shows weak double refraction with the refraction indices  $N_g = 1.612$  and  $N_p = 1.606$  as well as impurities of calcite. Synthetic hillebrandite was produced from a mixture of  $\text{SiO}_2$  and  $\text{Ca}(\text{OH})_2$  with a surplus of water in the autoclave at  $250^\circ$  in the course of 10 days. The preparation has refraction indices of from 1.601 to 1.608. The radiographical investigations carried out with the two preparations are shown by table 1.

Card 1/3

On the Dehydration of Calcium Hydrosilicate  
 $2\text{CaO} \cdot \text{SiO}_2 \cdot \text{H}_2\text{O}$  - Hillebrandite

SOV/78-4-5-35/46

The radiograms of natural and synthetic hillebrandite differ very little from each other. The differential heating curves of natural and synthetic hillebrandite were plotted and are shown in figure 1. By the crystallo-optic, thermal, and X-ray phase analyses it was found that synthetic and natural hillebrandite are identical. The dehydration of hillebrandite was carried out within the temperature interval of between 300 and 1200° and within the time of from 1 to 150 hours. During the process amorphous products are formed both in synthetic and natural hillebrandite. For forming an amorphous product the temperature of natural hillebrandite is somewhat higher than that of the synthetic product (535 and 540°). This shows that the crystals of natural hillebrandite are more developed than those of the synthetic product and are therefore not so easily destroyed. The refraction indices of the dehydration products of natural and synthetic hillebrandite are greater than in the initial products. The variation of the refraction index during the process of heating is shown by figure 4. There

Card 2/3

On the Dehydration of Calcium Hydrosilicate  
 $2\text{CaO} \cdot \text{SiO}_2 \cdot \text{H}_2\text{O}$  - Hillebrandite

SOV/78-4-5-35/46

are 4 figures, 1 table, and 14 references, 2 of which are Soviet.

ASSOCIATION: Institut khimii silikatov Akademii nauk SSSR (Institute for the Chemistry of Silicates of the Academy of Sciences, USSR)

SUBMITTED: February 20, 1958

Card 3/3

TOROPOV, N.A.; NIKOGOSYAN, Kh.S.; BOYKOVA, A.I.

Formation of dicalcium silicate  $\alpha$ -hydrate. Dokl. AN SSSR 135 no.1:  
98-100 N'60. (MIRA 13:11)

1. Institut khimii silikatov AN SSSR. Predstavleno akademikom  
N.V.Belovym.

(Calcium silicate)

TOROPOW, N. A., prof., dr. [Toropov, N. A.] BOJKOWA, A. I. [Boykova, A. I.]

Some properties of hydrothermal reactions in the system  $\text{CaO-SiO}_2\text{-H}_2\text{O}$ : Cement wapno gips 16/26 no. 7:203-208 '61.

1. Członek Akademii Budownictwa i Architektury ZSSR (for Toropow)
2. Instytut Chemii Krzemianów, Leningrad (for Boykova)

(Lime)

L 16142-63

EWf(q)/EWf(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3005442

S/0020/63/151/005/1114/1117

AUTHORS: Toropov, N. A. (Corr. member AN SSSR); Boykova, A. I.

TITLE: Solid solutions of tricalcium silicate with yttrium oxyortho-silicate

SOURCE: AN SSSR, Doklady\*, v. 151, no. 5, 1963, 1114-1117

TOPIC TAGS: silicate solid solution, tricalcium silicate, triclinic tricalcium silicate, DTA, monoclinic tricalcium silicate, trigonal tricalcium silicate, polymorphic conversion, tricalcium phosphate

ABSTRACT: Mixtures of  $3\text{CaO} \cdot \text{SiO}_2$  containing 0.5; 1; 2-8; 10; 12 and 15 weight %  $\text{Y}_2\text{O}_3 \cdot \text{SiO}_2$  were investigated. Heating to 1400-1450C for 2-3 hours assured complete reaction. A series of solid solutions were formed between the two silicates up to 6-7% of the  $\text{Y}_2\text{O}_3 \cdot \text{SiO}_2$ ; in higher concentrations the latter appeared as an independent phase. The solutions gave 2 polymorphic conversions, as does pure  $3\text{CaO} \cdot \text{SiO}_2$ : from triclinic to monoclinic at about 920C, and to trigonal at about

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L 16142-63

ACCESSION NR: AP3005442

2

970C. Differential thermal analysis data, IR and X-ray spectra were studied. "Chemical analysis was carried out by F. N. Smelovski in the analytical laboratory of the Institute." "Authors express thanks to G. P. Stavetsko for obtaining spectra of investigated materials." Orig. art. has: 1 table and 3 figures.

ASSOCIATION: Institut khimii silikatov im. I. V. Grebenshchikova  
Akademii nauk SSSR (Institute of silicate chemistry)

SUBMITTED: 06May63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: CH, MA

NO REF SOV: 003

OTHER: 003

Card 2/2

BAZHENOV, N.M. [deceased]; KOL'TSOV, A.I.; KIRPICHNIKOVA, N.P.; RYSKIN, Ya.I.;  
STAVITSKAYA, G.P.; BOYKOVA, A.I.; TOROPOV, N.A.

Infrared absorption spectra, proton magnetic resonance, and  
structure of dicalcium silicates  $\alpha$ - and  $\beta$ -hydrates. Izv. AN  
SSSR. Ser.khim. no.3:409-416 Mr '64. (MIRA 17:4)

1. Institut khimii silikatov im. I.V.Gregenshchikova AN SSSR i  
Institut vysokomolekulyarnykh soyedineniy AN SSSR.

BOYKOVA, A.I.; TOROPOV, N.A.; KUZNETSOV, A.K.

Rare earth silicates as crystal-chemical indicators.  
Solid solutions of tricalcium silicates with lanthanum  
oxyorthosilicate. Dokl. AN SSSR 156 no. 4:865-868 Je '64.  
(MIRA 17:6)

1. Institut khimii silikatov AN SSSR. 2. Chlen-korrespondent  
AN SSSR (for Toropov).

ACCESSION NR: AP4041154

S/0020/64/156/004/0865/0868

AUTHOR: Boykova, A. I.; Toropov, N. A. (Corresponding member); Kuznetsov, A. K.

TITLE: Rare earth silicates as crystallochemical indicators. Solid solutions of tricalcium silicate with lanthanum oxyorthosilicate

SOURCE: AN SSSR. Doklady\*, v. 156, no. 4, 1964, 865-868

TOPIC TAGS: tricalcium silicate, lanthanum oxyorthosilicate,  $3\text{CaO} \cdot \text{SiO}_2$  sub 2,  $\text{La}_{2/3}\text{O}_3 \cdot \text{SiO}_2$  sub 3, solubility, solid solution, rare earth silicate, crystallochemical indicator, x ray analysis, crystallooptical analysis, differential thermal analysis, isomorphism, polymorphic transition, beta  $2\text{CaO} \cdot \text{SiO}_2$  sub 2, gamma  $2\text{CaO} \cdot \text{SiO}_2$  sub 2, heat treatment

ABSTRACT: Compositions of  $3\text{CaO} \cdot \text{SiO}_2$  with 1-25%  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  were subjected to crystallooptical, x-ray, differential thermal and chemical analyses. The apparent limit of solubility of  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  in the  $3\text{CaO} \cdot \text{SiO}_2$  is 5%, but an increase in light refraction was noted as the former was increased to 12%, indicating that saturation of the solid solution continues beyond the limit of phase homogeneity (but the process is slow in attaining equilibrium) and the limit of the solid solution is

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ACCESSION NR: AP4041154

somewhat higher than 5%  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$ . Beta- and gamma-  $2\text{CaO} \cdot \text{SiO}_2$  were present in all the samples along with the solid solution, their amount increasing with an increase in  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  content. This is explained by the isomorphic exchange  $3\text{Ca}^{2+} \rightarrow 2\text{La}^{3+}$ . The larger the amount of the  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$ , the greater the number of Ca vacancies and the greater the amount of Ca above the stoichiometric 3:1; 3-4% excess CaO over the stoichiometric was found. The formation of the solid solution is a complex process involving introduction of Ca ions into the lattice to fill the vacancies as well as substitution by La ions. Differential thermal analysis showed the complex polymorphic transformations depended on  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  concentration and heat treatment. The annealed samples show essentially the same two endothermic effects in the 800-1000°C range as pure  $3\text{CaO} \cdot \text{SiO}_2$ , shifted somewhat toward lower temperatures with increase in  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  content; in the hardened compositions containing over 3%  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  an additional endothermic effect appears. Examination of the intensity of the x-ray ionization curves showed the triplet lines characteristic of  $3\text{CaO} \cdot \text{SiO}_2$  appeared in annealed lanthanum-containing compositions, but the maxima shifted and the aspect of the lines changed with increasing  $\text{La}_2\text{O}_3 \cdot \text{SiO}_2$  content in hardened compositions. Orig. art. has: 1 table and 3 figures.

Cord 2/3

ACCESSION NR: AP4041154

ASSOCIATION: Institut khimii silikatov, Akademii nauk SSSR (Institute of Silicate Chemistry Academy of Sciences SSSR)

SUBMITTED: 14Feb64

DATE ACQ: 00

ENCL: 00

SUB CODE: GC, IC

NO REF SOV: 004

OTHER: 003

Card 3/3

BOYKOVA, A.I.; TOROPOV, N.A.

Stoichiometry and polymorphism of tricalcium silicate. Dokl.  
AN SSSR 156 no.6:1428-1431 Je '64. (MIRA 17:8)

1. Institut khimii silikatov imeni Grebenshchikova. 2. Chlen-  
korrespondent AN SSSR (for Toropov).

L 03614-67

ACC NR: AP6029825 (A) SOURCE CODE: UR/0363/66/002/008/1487/1491

AUTHOR: Toropov, N. A.; Sher, Ye. S.; Boykova, A. I. 26  
B

ORG: Institute of Silicate Chemistry im. I. V. Grebenshchikov, Academy of Sciences, SSSR (Institut khimii silikatov Akademii nauk SSSR)

TITLE: Study of the products of thermal treatment of muscovite

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 8, 1966, 1487-1491

TOPIC TAGS: mica, thermal decomposition

ABSTRACT: Samples of ground muscovite were fired at 600-1400°C at 50° intervals for 3 hr at each temperature and the products formed were analyzed by optical examination, x-ray diffraction, differential thermal analysis, and infrared spectroscopy. The first structural changes were observed at 700°C. Thermal treatment at 1000°C was associated with the breakdown of the structure and with amorphization. The formation of new crystalline phases occurred at temperatures above 1000°C. The following compounds were identified by x-ray diffraction:  $\gamma$ - $\text{Al}_2\text{O}_3$ , spinel  $\text{MgAl}_2\text{O}_4$ , sanidine,  $\text{K}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$ ,  $\alpha$ - $\text{Al}_2\text{O}_3$  (corundum). On the basis of the infrared spectra of muscovite samples subjected to different temperatures, a quantitative description of the decomposition process of mica is proposed (see Fig. 1). Authors are grateful to G. P. Stavitskaya, who took the IR spectra. Orig. art. has: 6 figures and 1 table.

Card 1/2

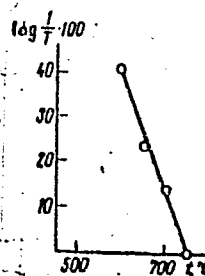
UDC: 661.862.65



L 03614-67

ACC NR: AP6029825

Fig. 1. Dependence of  $\log 1/T$  on the temperature of thermal treatment of muscovite sample.



SUB CODE: 07/ SUBM DATE: 09Dec65/ ORIG REF: 003/ OTH REF: 004

Card 2/2 awm

BOYKOVA, K.A.

Some species of Rugosa and Tabulata corals from upper Devonian  
deposits of the Russian Platform. Paleont.sbor. no.1:44-51 '54.  
(MIRA 8:10)

(Russian Platform--Corals, Fossil)

BELEVICH, V.V.; SHVETSOVA, V.F.; ZHITYAYKINA, N.F.; BYKADOROV, I.S.;  
IVANOV, G.I., kand.sel'skokhoz.nauk; GERMANISHVILI, V.Sh.,  
kand.geogr.nauk, retsenzent; SOKOLOV, I.F., retsenzent;  
KALMYKOVA, V.V., retsenzent; LYUBOMUDROVA, S.V., retsenzent;  
KRUSHKOVA, T.S., retsenzent; BOYKOVA, K.G., retsenzent;  
NOVSKIY, V.A., otv.red.; VLASOVA, Yu.V., red.; SERGEYEV, A.N.,  
tekhn.red.

[Agroclimatic manual for the Maritime Territory] Agroklimaticheskii  
spravochnik po Primorskoy kraiu. Leningrad, Gidrometeor.izd-vo,  
1960. 129 p. (MIRA 14:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. Primorskoye upravleniye. 2. Vladivostokskaya gidrometeorologicheskaya observatoriya (for Belevich, Shvetsova, Zhityaykina, Bykadorov). 3. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskii institut (for Germanishvili, Sokolov, Kalmykova, Lyubomudrova, Krushkova, Boykova).  
(Maritime Territory--Crops and climate)

BOYKOVA, K.G.

Characteristics of outstanding rains in the watersheds of the  
Bureya and Bira Rivers. Trudy Dal'nevost. MIGMI no.18;110-121

164.

(MIRA 17:11)

BOYKOVA, K.G.

Characteristics of extraordinary rains in the Zeya basin.

Trudy Dal'nevost. NIGMI no.20:100-109 '65.

(MIRA 18:11)

5(3)

AUTHORS:

Shabarova, Z. A., Sokolova, N. I.,  
Boykova, L. A., Prokof'yev, M. A.

SOV/79-29-9-23/76

TITLE:

Aminoacyl Derivatives of Nucleosides.  
V. Synthesis of N<sub>6</sub>-Aminoacyl- and N<sub>6</sub>-Peptide Derivatives  
of Cytidine

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2917-2922  
(USSR)

ABSTRACT:

In continuation of their earlier research work (Ref 1) the authors deal here with the synthesis of cytidine (3-β-D-ribo-furanosylcytosine) and its N<sub>6</sub>-aminoacyl- and N<sub>6</sub>-peptide derivatives. The so-called "carbodiimide method" is, as already previously shown, the most convenient method of synthesizing N<sub>6</sub>-aminoacyl- and N<sub>6</sub>-peptide derivatives of cytosine nucleoside. Its application to the synthesis of aminoacyl derivatives of cytidine made it possible to use in this reaction a nucleoside with non-substituted oxy-groups of saccharide, since no aminoacylation of the oxy-groups takes place under these conditions (Ref 6) (reaction scheme). Table 1 gives yields and constants of the synthesized

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V. Synthesis of N<sub>6</sub>-Aminoacyl- and N<sub>6</sub>-Peptide Derivatives  
of Cytidine

derivatives of cytidine. Thus, kbz-phenyl alanyl cytidine (yield 90%) resulted from the acylation of cytidine with phenyl alanine (kbz-phenyl alanine). Its ultraviolet absorption spectrum is equal to that of another well-known cytosine derivative (Ref 7) so that its structure is known; aminoacylation of cytidine proceeds also on the amino group under the formation of the N<sub>6</sub>-aminoacyl- and N<sub>6</sub>-peptide

derivative of cytidine with various amino acids (serine, tyrosine, cysteine, lysine) which contain also other functional groups apart from the  $\alpha$ -amino group. The aminoacyl derivatives of 3- $\beta$ -D-glucopyranosyl cytosine were synthesized in the same way (Table 2). As the various N<sub>6</sub>-aminoacyl

derivatives obtained from cytosine nucleosides differ in the structure of the amino acid which forms the amide bond, or in the structure of the saccharide, the effect of these components on the hydrolytic stability of the amide bond was investigated. Table 3 shows the results of the hydrolysis of N<sub>6</sub>-aminoacyl derivatives of cytidine and 3- $\beta$ -D-glucopyranosyl

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of Cytidine

cytosine, containing the same amino acids and peptides,  
and, for comparison, also the data on the hydrolytic stability  
of the amide bond in the N<sub>6</sub>-aminoacyl-3-β-D-tetraacetyl

glucopyranosyl cytosine. The hydrolytic stability of the  
amide bond in the above compounds was found to depend on  
the nature of the hydrolyzing carbohydrate which forms part  
of the nucleoside, as well as on the nature of the amino-  
acyl residue. There are 3 tables and 8 references, 4 of  
which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State  
University)

SUBMITTED: July 19, 1958

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S/054/61/000/003/003/003  
B102/B203

AUTHORS: Chernoberezhskiy, Yu. M., Boykova, L. M.

TITLE: Study of the process of electrodialysis of suspensions

PERIODICAL: Leningradskiy Universitet. Vestnik. Seriya fiziki i khimii,  
no. 3, 1961, 108-113

TEXT: Electrodialysis is today mainly used in purification processes (cleaning of water, separation of protein solutions from electrolytes, etc.). Theoretical studies of electrodialysis were started 25 years ago at the kafedra kolloidnoy khimii LGU (Department of Colloid Chemistry of LGU), and have been practically concluded. The present paper gives results of a theoretical and experimental study of rules governing the electrodialytic purification of disperse systems (bentonite) from electrolytes, considering the change of ion transference numbers and their effect on electrodialysis. The authors calculate the change of the amount of electrolyte in the central chamber of a simplified system consisting of anode (1) and cathode (2) membranes and the intermediate central chamber.

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Study of the process of electrodialysis...

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They obtain

$$\sum \Delta m = \Delta m_1 + \Delta m_2 = \frac{q}{F} (n_1 - n) + \frac{q}{F} (n - n_2) =$$

$$= \frac{q}{F} (n_1 - n_2) = \frac{q}{F} (\Delta n_1 - \Delta n_2). \quad (1)$$

the notation can be seen from Fig. 1;  $n_i$  are the transference numbers,  $\Delta n_i$  their changes,  $q$  the amount of electricity passing through the system,  $F$  the Faraday constant. Eq. (1) describes the total effect; it shows that the total change of the amount of electrolyte in the central chamber depends only on the ion transference number in the two membranes, but not on that in the suspension. Introduction of a disperse phase does not affect the process of electrodialysis itself. To check this theoretical result, the authors experimentally studied the electrodialysis on bentonite from the Oglanly deposit; a suspension of bentonite powder ( $< 88 \mu$ ) was subjected to a 12-16 hr dialysis in a three-chamber and in a five-chamber electrodialyzer. The experiments were conducted under the following conditions: 1)  $\Delta n_1 = \Delta n_2 = 0$  or  $\Delta n_1 = \Delta n_2 \neq 0$ ; 2)  $\Delta n_2 > \Delta n_1$ ; and 3)  $\Delta n_1 > \Delta n_2$ . A 5 % bentonite suspension introduced into the central chamber was shown to have no effect on the process of electrodialysis.

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Less important processes like electroosmosis, electrophoresis, secondary ion exchange, etc. have not been considered. The authors thank Professor O. N. Grigorov for suggesting the subject and giving advice. S. N. Aleshin, Yu. S. Afanas'yeva, and Koz'mina are mentioned. There are 3 figures, 2 tables, and 6 Soviet references.

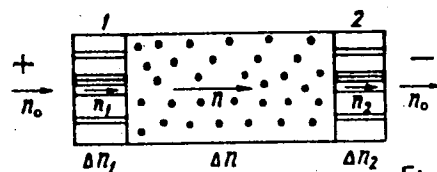


Fig. 1

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CHERNOBEREZHSKIY, Yu.M.; BOYKOVA, L.M.

Electrodialysis of suspensions. Part 1: Electrodialysis of  
bentonite. Vest. LGU 16 no.16:108-113 '61. (MIRA 14:8)  
(Bentonite)  
(Electrodialysis)

BOYKOVA, L.T.

KOLOBNEV, I.F.; KRYMOV, V.V.; POLYANSKIY, A.P.; AL'TMAN, M.B., kand.tekhn. nauk, retsenzent; ZAKHAROVA, G.V., kand.tekhn.nau, retsenzent; TIKHOVA, N.M., kand.tekhn.nauk, retsenzent; ARBUZOV, B.A., inzh., retsenzent; ASTAULOV, V.S., inzh., retsenzent; BOYKOVA, L.T., inzh. retsenzent; KITARI-OGU, G.S., inzh.retsenzenty; KRYGIN, B.T., inzh., retsenzent; LOTAREVA, O.B., inzh., retsenzent; SMIRNOVA, T.I., inzh., retsenzent; KHODOROVSKIY, G.L., inzh., retseuznet; RUBTSOV, N.N., prof. doktor tekhn.nauk, red.; KOLOBNEV, I.F., kand.tekhn.nauk., red. SIROTIN, A.I., inzh. red.izd-va; MODEL', B.I., tekhn.red.

[Founder's handbook: shape founding with aluminum and magnesium alloys] Soravochnik liteishchika; fasonnoe lit'e iz aliuminevykh i magnievykh splavov. Pod obshchei red. N.N.Rubtsova. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 482 p. (MIRA 11:2)  
(Founding) (Aluminum--Metallurgy)  
(Magnesium--Metallurgy)

BOYKOVA, L.T.

Content of zinc in the tissues and organs of rabbits during  
total starvation. Vop. pit. 22 no.3:47-50 My-Je '63.  
(MIRA 17:8)  
1. Iz kafedry biokhimii (zav. - dotsent G.A. Babenko)  
Stanislavskogo meditsinskogo instituta.

CHEKOVA, Ye.S.; BOYKOVA, N.P.

Use of ammonium bisulfite to improve the quality of oak tanning  
extracts. Kozh.-obuv.prom. 6 no.11:25 N '64.

(MIRA 18:4)

BOYKOVA, N. V. Cand Med Sci -- (diss) "Changes of the lungs <sup>during</sup> ~~occurring~~ in  
~~cases of~~ ligation of the pulmonary artery and introduction of a foreign body  
into the trachea." Len, 1958. 19 pp (Min of Health RSFSR. 1st Len Med Inst  
im Academician I. P. Pavlov), 200 copies (KL, 52-58, 106)



BOYKOVA, N.V.

Pulmonary changes following ligation of the pulmonary artery and the introduction of a foreign body into the trachea. Biul. eksp. biol. i med. 47 no.3:112-116 Mr '59. (MIRA 12:7)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M.A. Zakher'yevskaya) 1-go Leningradskogo meditsinskogo instituta imeni I.P. Pavlova. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Anichkovym.

(LUNGS, physiol.

eff. of pulm. artery ligation & for. body in trachea in rabbits (Rus))

(PULMONARY ARTERIES, physiol.

eff. of ligation on lungs in rabbits, with for. body in trachea (Rus))

(TRACHEA, for. bodies,

exper., with pulm. artery ligation, eff. on lungs in rabbits (Rus))

BOYKOVA, N. V.; PAVLOV, B. A. (Leningrad)

Primary sarcoma of the heart. Arkh. pat. no.6:69-72 '61.  
(MIRA 14:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M. A. Zakhar'yevskaya) i kafedry fakul'tetskoy terapii (zav. - prof. T. S. Istamanova) I Leningradskogo meditsinskogo instituta imeni akad. I. P. Pavlova.

(HEART--TUMORS)

TEMIROVA, K.V., kand.med.nauk; BOYKOVA, N.V., kand.med.nauk (Leningrad)

Thromboarthritis of the small branches of the pulmonary artery.  
Klin.med. no.4:135-138 '62. (MIRA 15:5)

1. Iz kafedry gosspital'noy terapii (zav. - prof. P.K. Bulatov)  
i kafedry patologicheskoy anatomii (zav. - prof. M.A. Zakhar'-  
yevskaya) I Leningradskogo meditsinskogo instituta imeni akad.  
I.P. Pavlova.

(PULMONARY EMBOLISM)

BOYKOVA, N.V.; MIL'CHENKO, V.A.

Case of psychosis in acute lupus erythematosus. Vop.psikh.i nevr.  
no.7:460-467 '61. (MIRA 15:8)

1. Iz psikhiatricheskoy bol'nitsy imeni P.P.Kashchenko (glavnyy  
vrach I.T.Viktorov, nauchnyy konsul'tant prof. Ye.S.Averbukh).  
(LUPUS ERYTHEMATOSUS) (PSYCHOSES)

BOYKOVA, N. V., kand. med. nauk (Leningrad)

Changes in the kidneys in lymphostasis. Klin. med. no.8:134-137  
'61. (MIRA 15:4)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M. A.  
Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni  
akademika I. P. Pavlova.

(KIDNEYS—DISEASES) (LYMPHATICS—DISEASES)

BOYKOVA, N.V.

Changes in a lung with an aseptic and infected focus of inflammation in ligature of the pulmonary artery. Biul. eksp. biol. i med. 54 no. 11: 109-113 N '62. (MIRA 15:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M.A. Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni akademika I.P. Pavlova. Predstavlena akademikom N.N. Anichkovym.  
(PULMONARY ARTERY—LIGATURE) (LUNGS—DISEASES)

BOYKOVA, N.V. (Leningrad)

Changes in the pulmonary artery at the site of its ligation. Arkh.  
pat. 26 no.9:42-46 '64. (MIRA 18:4)

1. Kafedra patologicheskoy anatomii i Leningradskogo meditsinskogo  
instituta imeni Pavlova (zav. ~ prof. M.A.Zakhar'yevskaya).

BOYKOVA, N.V. (Leningrad)

Pathological anatomy of diabetic glomerulosclerosis. Arkh. pat. 26  
no.12:8-14 '64. (MIRA 18:5)

1. Kafedra patologicheskoy anatomii (zav. - prof. M.A.Zakhar'-  
yevskaya) Leningradskogo meditsinskogo instituta imeni Pavlova.



ACC NR: AT6036496

SOURCE CODE: UR/0000/66/000/000/0062/0063

AUTHOR: Benevolenskaya, T. V.; Boykova, O. I.; Korotayev, M. M.; Mikhalylovskiy, G. P.; Savilov, A. A.

ORG: none

TITLE: Use of dosed physical exercise in diagnosing changes in the functional state of the cardiovascular system [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 62-63

TOPIC TAGS: space medicine, diagnostic medicine, cardiovascular system, cosmonaut. training, physical exercise, cardiology

ABSTRACT: Exercise tests are valuable for examination of cosmonauts because they uncover latent pathological changes in cardiovascular function. Many of the subjects of this study were unaccustomed to sport or exercise, so it was necessary to demonstrate their adaptability to physical exercise. Physical exercise consisted of a single and double Master test — twenty deep-knee-bends in 30 sec-- and work on a bicycle ergometer. Master's test is valuable because it permits dosing the exercise depending on the subjects' age and weight and makes evaluation of myocardiac

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ACC NR: AT6036496

function during exercise possible. However, electrocardiograms cannot be recorded in the usual manner during this test. For this reason the supplementary test on the bicycle ergometer was used. The optimum physical exercise of 1000 kg-m per min was performed for 5 min. Tests (160 in all) were administered in the morning after preliminary training the night before. EKG's, phonocardiograms, sphygmograms, and blood pressure readings were taken before and after the test, and at one-minute intervals during the test.

Experimental results showed the following physiological shifts in healthy people: 1) pulse rate increased 100—120% from initial levels, 2) systolic pressure increased to 200 mm, 3) diastolic pressure varied up to 10 mm in either direction, 4) the T-spike of the EKG decreased and subsequently increased, and 5) the ST interval underwent a slight shift. Decreases in the length of the isometric contraction pause, the period of expulsion, and the mechanical system were noted, together with increases in the intrasystolic index and the rate of increase in intraventricular pressure. In addition, the percentage of oxygenation changed slightly. In some subjects there were indications of insufficient cardiac-muscle, nourishment, appearing chiefly in the aftereffect

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ACC NR: AT6036496

period; the ST interval shifted, some two-phase or inverted T-spikes were noted, and migration of rhythm occurred.

Tests on the bicycle ergometer also demonstrated the insufficient adaptability of the cardiovascular system to physical exercise: 1) pulse rate increased 200%, 2) diastolic pressure increased 30 mm, 3) a long aftereffect period was noted, and 4) extrasystole occurred. In some subjects the isometric contraction phase increased. The T-spike of the EKG changed slightly.

Inclusion of these tests in the regular examination of aviation personnel and cosmonauts is recommended because of the possibility of dosing exercises and recording a number of electrophysiological parameters during exercise, but also because of the large percentage of pathological cardiovascular changes uncovered in apparently healthy people during work on the ergometer. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06, 05 / SUBM DATE: 00May66

Card 3/3

BOYKOVA, O. S.

Gandel'sman, A. B., Boykova, O. S. and Zen'kevich, K. F.

"Therapeutic gymnastics in scolioses arising from faults in the development of the spine," Sbornik nauch. trudov (K-vo zdravookhraneniya RSFSR. Resp. nauch.-issled in-t vosstanovleniya trudosposobnosti fiz. defektivnykh detey im. prof. Turnera), Leningrad, 1948, p. 407-27.

SO: U - 3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 7, 1949).